

REMARKS

The present application has been amended to obviate the Examiner's rejections and to clarify the patentable features of the Applicant's invention. In particular, claim 1 has been amended and new claims 16-20 are being added. Claims 9-12 stand withdrawn. Reconsideration of the rejection of the claims of this application is hereby requested.

Claims 1 and 5-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Lu patent (Patent No. 5,406,933). Among other features, claim 1 calls for a collector chamber communicating with the outlets of the heat exchange tubes and further recites that the collector chamber is divided into sections by a baffle member that is located in the collector chamber with one of the sections communicating with the outlets of a first group of burners and another section of the collector chamber communicating with the outlets of the heat exchange tubes associated with a second group of burners. An induced draft blower concurrently communicates with both sections of the collector chamber. In the rejection of claim 1, the Examiner asserts that the Lu patent shows a collector chamber "22a, 26" that communicates with outlets of the heat exchange tube. It is respectfully submitted, that the reference characters 22a, 26 do not refer to a collector chamber in the Lu patent. It appears that the reference character 40 points to what one may argue is a

collector chamber in the Lu patent. However, the details of the chamber 40 are neither shown nor discussed. Nowhere in the Lu specification is there a suggestion to include a baffle member within a collector chamber which divides the chamber into sections that communicate with respective first and second groups of heat exchange tubes. Based on a reasonable interpretation of the Lu description, the outlets of all tubes in Lu communicate with a common, undivided collector chamber. No where is there even a remote suggestion to include a baffle member within a collector chamber to divide the collector chamber in sections that communicate with respective groups of burners. Claim 1 should therefore be allowed.

Claims 2-8 depend directly or indirectly from claim 1 and should also be allowed.

Dependent claim 5 warrants special mention. This claim, which depends from claim 1 and is allowable along with claim 1, specifically recites a secondary air plate that is disposed between an output end of the burners of the first group and the inlets of the heat exchangers associated with the burners of the first group. It also recites that the secondary air plate is spaced a predetermined distance from the inlets of the associated heat exchange tubes. In paragraph 4 of the Office Action, the Examiner is apparently asserting the basis for his rejection of claim 5, although the basis for the rejection of claim 5 is not entirely clear. The Examiner does assert that the Lu patent

teaches "an orthogonally arranged air plate 38a with blocking member for restricting the flow of air". The reference character 38a in the Lu patent points to the inlet openings of the heat exchange tubes. The secondary air plate set forth in dependent claim 5 is fully described in paragraphs 0043 and 0045 of the Applicant's published application. It is respectfully submitted that the Lu patent does not disclose or suggest a secondary air plate as set forth in claim 5. The subject matter of claim 5 is certainly patentable in view of the Lu patent and, therefore, claim 5 should be allowed.

Claim 13 includes the subject matter of claim 1 and also claims a second gas-fired heating apparatus and a control for coordinating the operation of the first and second heating apparatuses. Claim 13 should be allowable at least for the same reasons articulated in connection with claim 1. Moreover, claim 13 is also patentable because the Lu patent does not disclose or suggest first and second heating apparatuses and a control for coordinating their operation so that a 16:1 turn-down ratio can be achieved. Claims 14 and 15 depend from claim 13 and should also be allowed.

Claim 16 is patterned somewhat after allowable claim 1, except that it features the secondary air plate and not the baffle member. As discussed above in connection with claim 5, the Lu patent does not disclose or suggest a secondary air

plate that is disposed between an output end of the burners of a first group and the inlets of heat exchange tubes that are associated with the burners of the first group. As also recited in claim 16, the secondary air plate is spaced a predetermined distance from the inlets of the associated heat exchange tubes thereby defining a path of secondary air between the plate and the tube inlets. This construction is not shown or rendered obvious by the Lu patent. Claim 16 and dependent claim 17 should be allowed.

New claim 18 includes the subject matter of allowable claim 16 and also recites a second gas-fired heating apparatus and a control for coordinating the operation of the first and second heating apparatuses. Claim 18 is allowable for at least the reasons discussed in connection with claim 16 but is further allowable because the prior art cited does not disclose or suggest a heating system that also includes a second gas-fired heating apparatus and a control for coordinating the operation of first and second heating apparatuses so that at least a 16:1 turn-down ratio is achieved. Claim 18 should be allowed. Dependent claims 19 and 20 depend from claim 18 and should also be allowed.

In view of the foregoing amendment and discussion, it is respectfully submitted that the claims in this application are patentably distinct from the prior art and each

from the other and this application is therefore in condition for allowance. Prompt notice to that effect is earnestly requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

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